BEST PRACTICES IN EGOVERNMENT AND EBUSINESS

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Executive Summary

The State of California must look forward, rather than backward, in order to prepare for the New Economy. The New Economy is being driven by the convergence of information and communication technologies that are enabling organizations to transform the way they conduct business. As such, the Internet [used in a generic sense to include all Internet-related technologies] is an enabler that allows companies to fundamentally change their business or reengineer their operations. As time and distance are collapsing in the New Economy, the speed of change is increasing dramatically. Traditional processes do not always apply in this new environment. In fact, many firms have proven that the "self-service" model of 24x7 availability improves customer satisfaction, improves productivity, and reduces cost.

Government is not immune to these changes. The pace of change in the public sector has increased as well. Citizens and businesses want to interact with public sector entities in the same manner that they have become accustomed to transacting business with banks, airlines, and Amazon.com.

This transition to "eGovernment" has been underway for the last three or four years. States such as Washington, Utah, Pennsylvania, and Florida have aggressive electronic government strategies, many of which are coupled with their economic development initiatives. Information technology is the common thread between these New Economy economic development and eGovernment initiatives—and it's dramatically affecting the way states, counties, and countries compete.

When it comes to eGovernment, in particular, California falls squarely in the middle of the competition, with states like Washington, Wisconsin, and Virginia among others outperforming California in eGovernment benchmarking surveys conducted over the last two years. States and localities with active eGovernment programs are achieving measurable results:
- Lower transaction costs
- Increased accuracy
- Quicker turnaround
- Improved citizen access to government services and information

As California moves forward, it can learn from both public and private sector organizations that have already achieved initial success with their eGovernment and eBusiness initiatives. Best practices in information technology have changed as a result of the Internet, web browsers, and the advent of "Internet technologies."

In particular, the state needs to focus on leadership, governance, organizational competency, and technology. The management challenges of eGovernment are greater than the technological changes, and as California evaluates its government technology success, it must look forward to ensure that the new strategies enable California to succeed in the New Economy.

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The Internet Economy

In less than four years the Internet has achieved "mass market" status, with 50 million people worldwide using the medium to work, live, play, and learn. This is dramatically different than previous technology solutions, like mini-computers and client/server solutions. The Internet is responsible for the advent of new industries, dramatically different business models, and much more efficient ways of operations.

Information technology has been recognized as a significant driver of U.S. economic growth over the last decade. The U.S. Department of Commerce reported in June 1999 that the fast-expanding technology sector accounted for just 8% of the whole economy between 1995 and 1998 but accounted for more than 33% of growth after adjustment for inflation. When you focus on the Internet Economy, the results are even more dramatic.

According to the Center for Research in Electronic Commerce, University of Texas, the Internet Economy grew from just $5 billion in 1995 to an estimated $507 billion in 1999, a compound average growth rate of 212%. The companies that comprise this quickly growing segment of the economy include Internet infrastructure, application infrastructure, intermediary infrastructure, and Internet commerce infrastructure firms. As a means of comparison, U.S. GDP grew at a CAGR of 3.6% during the same time period. The Internet Economy has also created 1.3 million jobs in our country.

In addition to the amazing growth and pace of change with the Internet Economy, analysts are also beginning to emphasize the productivity improvement opportunity as well. In fact, Giga Group found that, "In 2002, the almost $1 trillion in predicted global Internet commerce revenues, will also generate cost savings of nearly $1.25 trillion, producing even greater profit margins than revenue growth, dollar for dollar."

Organizations are taking advantage of these new tools and ways of doing business, and many have proven that providing customers with access to information and services "on demand" is an effective business model. According to Pete Solvik, SVP and CIO of Cisco Systems, "The self-service model works: it improves customer satisfaction, reduces cost, and improves productivity." This new way of doing business is not just being used in the private sector, but is being adopted by innovative public sector entities as well.

eGovernment

In today's environment many organizations are conducting business over the Internet, which is often referred to as electronic commerce or eCommerce. Applying eCommerce principles to an entire business operation across all business processes is known as eBusiness. eGovernment is the government version of eBusiness, meaning that there are opportunities to dramatically change the way that government services and information are provided to constituents, businesses, suppliers, other governmental agencies, and government employees. eGovernment has the potential to be much more than a "web front-end" to an inefficient, existing business process.

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States are racing to implement eGovernment initiatives—to improve the accessibility of government services and information to constituents and local businesses. Here are just a few examples of the solutions and their results.

♦ **Alaska** was the third jurisdiction to enable online vehicle registrations and vanity plate purchases. With a $400,000 budget, DMV developed an interactive website that reduced the price of transactions from about $8 to less than $1. Turn around time on paperwork for vehicle registration has dropped from 6-8 weeks to 3-5 days. And with traditional wait times as much as two and a half hours at DMV offices, citizens can now renew their vehicles in about 100 seconds.

♦ **Virginia's** Regulatory Town Hall was developed by the Office of Planning and Budget. The Regulatory Town Hall is an intranet and Internet-based solution that has transformed the way Virginia performs the rule making process. An intranet-based application improves workflow, ensuring that the proposed regulations move through the appropriate offices electronically, streamlining the entire process. In addition, citizens can view proposed regulations on the website as well as sign up to be notified by e-mail when documents are posted, a comment period begins, or a relevant meeting is being held. Additionally, the Web site includes background discussion documents, economic impact studies and other supplementary material, which in the past have not been widely available.

♦ The City of **Baltimore, Maryland** developed Surplus Auctions with Classified Auctions.com to allow online consumers to purchase surplus goods that otherwise would be available only to a few people aware of the opportunity. Surplus items auctioned from the warehouse include books, office desks and other things the city doesn't need or want anymore. In 1999 the service was free, but in the future the city will likely charge citizens $1 to participate in each auction.

♦ The **Pennsylvania House of Representatives Republican Caucus** is using an intranet-based solution to provide video of live floor debate to desktop PCs during the legislative session, which has been indispensable for the legal, public information, and research departments. House Committee hearings and special interest events are also streamed to PCs on days when the legislature is not in session. In the future the caucus plans to further leverage their infrastructure to enable e-learning for employees.

♦ **Indiana's** Child Care database is an interactive system designed to help Indiana constituents locate licensed child care in their area. Enter location information and the child's age and you can find state-licensed child care providers.

♦ **Georgia** developed "Galileo," Georgia Learning Online, an Internet-based library network that provides broad access to sophisticated research resources. In addition to all of the state's public colleges, there are 33 private colleges, 31 vocational schools, and 57 of the states largest public libraries that can access more than 160 databases and 55 major U.S. newspapers. With the state funding the annual license fees for information services, citizens across the state benefit from equal access to reference and educational support materials, helping to eliminate the digital divide.

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While California has implemented a few web-based solutions, namely eFiling offered by the Franchise Tax Board, overall the state is not doing well in the race. In the Digital State benchmarking survey released by the Progress & Freedom Foundation in early 1999, California actually lost ground, falling from #16 the year prior to #24 with a score of 63.3 (out of 100). These findings were based on considerable evaluation in eight key segments: Higher Education, K-12 Education, Business Regulation, Taxation, Social Services, Law Enforcement and the Courts, Digital Democracy, and "Other Initiatives." In Syracuse University's Government Performance Project conducted in partnership with *Governing*, California was given a C+ rating in Information Technology and a C- overall, which included financial, capital, human resources, and performance management in addition to IT.

States considered more innovative and successful at this time include the following:

- **Washington** is the state to beat: nationally recognized for its eGovernment solutions, K-20 educational network, and tying all of the above into its economic development strategy, Governor Locke and CIO, Steve Kolodney, have done an excellent job of preparing Washington for the information-based economy.

- **Utah** passed the "Digital State" legislation that mandates most government services be made available over the web by July 1, 2002. In addition, their Governor, Mike Levitt, is well known as a proponent of technology. Utah was one of the first states to pass a digital signature law and is currently considering legislation to make the Department of Motor Vehicles responsible for authenticating individuals and providing digital signatures.

- **Pennsylvania**'s economy is undergoing a significant transformation from an industrial-based economy to an information-based one. Governor Ridge is recognized for his aggressive economic development programs that tie technology to traditional industries, as in the new "Digital Greenhouse." In addition, Ridge has promoted eGovernment solutions and mandated last year that each agency identify two services that could be offered on the web. Last year Pennsylvania won *Government Technology*'s "Best of the Web" contest.

- **Virginia** Governor Gilmore and CIO Don Upson have positioned their state very well in the race to be an Internet Economy leader. Gilmore issued Executive Order #51 last summer to mandate, among other things, that all the Commonwealth agencies develop Internet strategies by June 30th and that all state government forms be made available over the web by the end of 2000. Virginia is also known for its passage of the "Internet Policy Framework," a series of "Internet Economy enabling" laws outlining guidelines for privacy, Internet crimes, and freedom of information among other topics. Finally, some states also look to Virginia as a potential model for IT governance. Gilmore appointed Upson as the first cabinet-level CIO in the U.S. to be not only responsible for internal IT operations but external economic development as well.

♦ **North Carolina** wants to be a "dot com" state and has invested heavily in the past to consolidate data centers as well as develop the North Carolina Information Highway and other infrastructure-related projects like a statewide email system. They invested heavily in their electronic government plan, creating a senior level working group to determine the state's electronic commerce requirements and strategy. This successful working group resulted in the development of the plan, an EC technical architecture, and a number of important pilot projects. Very soon North Carolina will be going live with its new citizen, business, and employee portals, and they are sure to catch up to many states in the eGovernment race. With the passage of SB222, North Carolina will be one of the first states to deal with the issue of IT investment and accountability by consolidating more authority with the CIO's office.

Lessons Learned

Successful public and private sector organizations share some common approaches, which California should investigate during its government technology evaluation as these success criteria, if adopted, will help the state move forward.

♦ Enterprise approach. The benefits of an enterprise approach to IT are tremendous: lower overall costs, leverageable infrastructure, interoperability across agencies and departments, ability to communicate across silos. These internal benefits translate into improved interactions with external constituencies as well, including taxpayers, businesses, and other governmental entities to name a few.

♦ Role of IT. The CIO or IT department delivers centralized infrastructure, establishes and supports standards, and provides IT "consulting resources" to support the departments' requirements. In this model, IT and departments work together to marry operational goals and available technology solutions.

♦ Project decisions based on business need. Project decisions need to be made according to well-defined business need, not technology *per se*. This necessitates the participation of both business/administrative and IT managers.

♦ Shared accountability with business/IT partnerships. IT and business/administrative management must be held accountable for the success of their project. This includes defining and measuring appropriate metrics that demonstrate real return on the project.

♦ Customer-centric approach. Akin to basing project decisions on business need, it is similarly important to put the customer's (whether it's constituents or businesses) needs first.

♦ Iterative development. With web-based solutions, application development is iterative, with modules typically ready in 3-4 months, rather than 3-4 years. In this environment the state needs to focus on small opportunities to win big quickly.

♦ Robust, scalable infrastructure. This electronic platform is the core of an eGovernment and can be leveraged by agencies, departments, and commissions.

Principles of Net-Readiness

From Cisco's eBusiness transformation experience as well as experience in consulting with other private and public sector organizations, two directors of Cisco's Internet Business Solution Group have distilled the basic tenets of succeeding in the Internet Economy to "Net Readiness."

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The four pillars of Net Readiness include leadership, governance, technology, and competency. California must improve in each aspect and can begin by assessing its strategy, culture, resources, and enabling environment at http://www.netreadiness.com. After understanding strengths and weaknesses, opportunities and challenges offered by eGovernment, California can develop an Internet strategy, manage its eGovernment investments in the Internet Value Matrix (see http://www.cisco.com/go/icorporation), and begin measuring the results or outcomes of its initiatives.

For example, Cisco has found that different types of Internet initiatives, like "New Fundamentals" or "Rational Experimentation," should be measured differently. Since New Fundamentals are primarily around operational improvements, most of the metrics that should be used revolve around productivity factors, like turnaround time, employee efficiency, and 'overhead' growth. By comparison, Rational Experimentation projects are measured by "hits," meaning how many experiments are underway and how effective they are.

Conclusion

The State of California needs to look forward, not backward, in order to succeed in the Internet Economy. The state does not only need leadership for its technology initiatives, but it needs as much emphasis placed on governance, organizational competencies, and technology. It needs to develop a scalable electronic platform to enable communication and collaboration across the enterprise. It needs to overhaul and streamline the CIO's office, the procurement process, the oversight process, and other controls that have been layered on top of the system.

It needs to create a fresh start by implementing new eGovernment solutions, reengineering old business processes, and retraining government employees in Internet and web technologies. It needs to dramatically flip the percentage of IT dollars that are allocated to maintenance of ancient systems to development of new systems that can be securely accessed by employees, suppliers, citizens, businesses, and other governmental agencies as appropriate.

It needs to begin taking advantage of eGovernment solutions in order to improve accuracy, turnaround times, and customer satisfaction by streamlining operations and utilizing a self-service model.